

Amphibian Voice

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Species at Risk

A New Perspective on Species at Risk?

By: Dr. Ron J. Brooks, Professor, University of Guelph

Recently snapping turtles joined all other Canadian turtles as species at risk. The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) added the snapping turtle to its list as a species of Special Concern. To many this assessment seemed surprising, because the snapper is still widespread and occasionally locally abundant, but often when species decline we don't notice until it is too late.



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Snappers are exceptionally vulnerable to even small increases in adult mortality. In Canada, they can take up to 20 years to mature. Mortality of eggs and hatchlings is often 100%. Once mature, snappers "expect" to live up to another 100 years to replace themselves.

But this longevity has been hugely curtailed by mortality caused by people. Snappers are persecuted mercilessly, subjected to a

burgeoning illegal harvest, killed by boat propellers, fish traps, draining of wetlands, accumulation of contaminants and other human activities.

But the real threat is thousands of kilometres of roads. Gravel shoulders provide mother turtles with a place to lay their eggs, but these females are slaughtered, deliberately or accidentally, as they try to nest; leaving only males with no potential partners - then nothing.

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Snapping turtles in natural, undisturbed wetlands can reach prodigious numbers and play a major, if poorly understood, role in these ecosystems. As we decimate their

SHOW US YOUR SNOW HERPS!!

We at Adopt-A-Pond know that when you're feeling cooped up in winter, you like to build turtle and frog snow sculptures and dream of spring. Don't worry, we do it too. And we want to celebrate it. We'd like to invite all Turtle Talliers and FrogWatchers to send us photos of your best snow turtles and frogs and we will include a selection of them in the Spring 2009 Amphibian Voice. HAVE FUN!

populations, we wreak unknown harm to these evolved relationships.

Despite the federal listing, the snapper remains a "game" species in most jurisdictions. But this "hunt" is largely unmonitored, and current evidence shows that it speeds up the species' decline. The snapper's designation of Special Concern does not provide explicit prohibitions to protect it, but it does require a management plan to be devised. A sensible first step would be to end the snapping turtle's designation as a 'game reptile' and give it the protection we offer to other turtles.

Editor's Note: Adopt-A-Pond and Ontario Turtle Tally would like to thank all those who commented on the proposed amendment to include snapping turtles as a game species in the Kawartha Highlands Signature Site Management Plan.

How Does the Species at Risk Act Work?

By: Keith Pickthorn, Adopt-A-Pond

In Canada, there is a wealth of biodiversity. However, many floral and faunal species are declining as a result of natural and human induced changes to the environment. In response, the Government of Canada created the Strategy for the Protection of Species at Risk. The Strategy has three major components. They are the Habitat Stewardship Program, the Accord for the Protection of Species at Risk endorsed by the provinces, territories and the Government of Canada and the Species at Risk Act (SARA).

What is the Species at Risk Act and what is its purpose?

SARA is a key piece of federal legislation for the conservation and protection of Canada's biological diversity. Its purpose is "to prevent wildlife species from being extirpated or becoming extinct, to provide for the recovery of wildlife species that are extirpated, endangered or threatened as a result of human activity and to manage species of special concern to prevent them from becoming endangered or threatened." It protects a variety of Canadian wildlife including reptiles, amphibians, mammals, plants, and birds.

How is a species determined to be at risk in Canada?

SARA also outlines the establishment and role of the independent group of experts responsible for determining the status of species at risk in Canada, COSEWIC (Committee on the Status of Endangered Wildlife in Canada). COSEWIC's primary function is to determine which Canadian species should be designated as a species at risk. They are responsible for identifying existing and potential threats to Canadian species and upon conclusion recommending a status level. The levels of classification are, from most at risk to least, extinct, extirpated, endangered, threatened, special concern, data deficient or not at risk. Terrestrial species at risk identified by COSEWIC at a national level are protected under the SARA on any federal land, while in aquatic species are protected in all of their environments as well as migratory birds. In addition all species at risk critical habitat is protected under the act.

What about Ontario?

In Ontario, species at risk are identified similarly to those at the national level. Species at risk are reviewed by a team of experts known as the Committee on the Status of Species at Risk in Ontario (COSSARO). COSSARO reviews COSEWIC's national species at risk list and determines the provincial status of each species at risk that is found within Ontario. Species at risk are then given similar legislative protection as those at the national level under SARA under Ontario's Endangered Species Act.

Generally, species at risk listed by COSEWIC at the national level are subsequently listed by COSSARO in Ontario. Recently, the Snapping turtle (*Chelydra serpentina*) was listed as a species at risk in Canada by COSEWIC and currently, COSSARO is in the process of determining the provincial status of the Snapping turtle.

SPECIES AT RISK LEVELS OF CLASSIFICATION

- Extinct** – A wildlife species that no longer exists.
- Extirpated** – A wildlife species no longer existing in the wild in Canada, but occurring elsewhere.
- Endangered** – A wildlife species facing imminent extirpation or extinction.
- Threatened** – A wildlife species likely to become endangered if limiting factors are not reversed.
- Special Concern** – A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
- Data Deficient** – A category that applies when the available information is insufficient (a) to resolve a wildlife species' eligibility for assessment or (b) to permit an assessment of the wildlife species' risk of extinction.
- Not at Risk** – A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.

New Amphibian Pond

By: Larry Noonan, *Altona Forest Community Stewardship*



The Altona forest is located in the City of Pickering east of Toronto and is an area rich in history and wildlife. The recent focus on the property has been the development of wetland habitat to help with the conservation and restoration of amphibian species.

A number of frog species have been reported in the Altona forest in the past including: chorus, wood and leopard frogs, gray

treefrogs, green frogs, American toads, and perhaps but not confirmed bullfrogs, spring peepers, pickerel and mink frogs. It is also believed that the Altona forest could support populations of red-backed salamanders.

The wood frog is known to have successfully bred at the previously rehabilitated Lacey's pond in the Altona forest. Lacey's pond supplies the necessary spring habitat for species like the wood frog, that utilize ephemeral ponds (meaning they dry out during the summer months) however more permanent wetland habitat that many other amphibian species require was lacking from the site.

Plans started in 2004 to find a location for an additional pond that would retain water all year round, in an attempt to help re-establish some of the amphibian species from the original Altona forest. The following were identified as target species because of previous habitation in the forest and because of the possibility of nearby populations still in existence but in imminent danger from development.

Chorus and leopard frogs require a wet environment during March and April but also need nearby meadows that receive plenty of sun. Lacey's Pond does not have any nearby meadows and is therefore unsuitable for these frogs. Gray treefrogs require water during May and early June but also need small trees located near or in the water. Green frogs need permanent water for summer and overwintering habitat while American toads need to be close to water for May and June. The red-backed salamander is a lungless salamander that requires a moist surface area to survive in the surrounding woods. The new wetland design and location choice was to try and meet all of the criteria for these amphibians. The construction of the pond was carried out in October of 2008 and the short



access route to the pond was completed one day before the official opening of Nov. 4, 2008.

Since deer and coyote tracks have already been spotted at the new pond, it is expected that this pond will become a centre of activity for many of the animals in Altona forest. It is hoped that other amphibians and some reptiles will re-establish themselves in Altona forest because of the new pond. Only time will tell how successful the new pond site will be, but this is a giant step forward in achieving a more balanced ecology within Altona Forest.

Editor's Note: Adopt-A-Pond was pleased to help Larry Noonan, the TRCA and the whole Altona Forest Stewardship Team in the design of this wetland.

Eastern Box turtle Found in Kitchener Area

By: Neil E. Taylor, Turtle Tallyer



Not far north from Highway 401 near Kitchener, a beautiful cold water stream is home to a number of species at risk in Canada. More recently though it has become the home of an unusual species, which is not necessarily found in Ontario, the Eastern Box turtle (*Terrapene carolina carolina*).

On June 11th, 2008, local resident Randy Moore, spotted an object on the road. The object turned out to be a turtle in hues of yellow, gold, and orange. He shared the find with neighbour Tony Christie, who in turn described it to me. The next day I visited the Christie home where the turtle was being kept and after consulting various sources, we determined it was an Eastern Box turtle. I




Please help Ontario's Frogs and Toads!

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Gray treefrog








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Habitat Stewardship Program

wanted a more expert opinion though so I contacted a friend, Craig Campbell an environmental consultant and university research associate. He confirmed the species and noted that this individual was shy and gave off a strong odour, a defense strategy, indicating that it was not used to human contact.

The Eastern Box turtle is a subspecies of hinged-shelled turtles, commonly called box turtles. They are characterized by a dome shaped carapace with irregular yellow or orange blotches. They are terrestrial turtles, generally living in habitats ranging from woodlands and brushy fields, to marshy meadows, bogs, or stream banks. They hibernate in deep, loose

soil, mud, and stream bottoms or in old stump holes, or mammal burrows. This is precisely the habitat near where the Kitchener turtle was found.

COSEWIC's webpage provides the following insight to the Eastern Box turtle in Canada: "This species was native to Ontario up to at least the 1500s, and their numbers were subsequently reduced perhaps by overexploitation and habitat alteration, to give the appearance of extirpation. The low numbers currently found in Ontario could represent a native population in severe decline, or alternatively a recently introduced population derived from a few individuals. There is no conclusive evidence to prove or disprove the native status of the currently existing individuals in Canada. New information is required to resolve the status of the extant population."

Like most turtle species, declining population numbers are often attributed to habitat destruction and pollution. The pet trade has also historically contributed to reductions in population size although protective laws have limited this in recent time.

The question is: "Was this turtle wild or released?" We will never know for sure, but I like to think there are still some wild Eastern Box turtles living in Ontario.

Warm Greetings From The Ways of Knowing Partnership Turtle Island Conservation Initiative

By: Kim Wheatley, Turtle Island Conservation

Boozhoo, Se:kon, Tansi and Hello to you all! As we weather our way through a long and cold winter it is hard to imagine the warmth of spring and summer. However the Turtle Island Conservation Initiative has already planned many exciting activities for the warmer months. We have experienced tremendous growth in our 3 years of existence.

This summer we will be hosting our first overnight Art and Science camp for children and youth. These camps will encourage the participation of urban and non-urban First Nation children and youth to engage in an on-site overnight camp experience that explores the values of traditional ecological science and artistic expression.

As the country celebrates National Aboriginal Day across Canada on June 21, 2009 we too will be hosting our 3rd annual event. We extend an open invitation for all to come join us as this year promises to be an exciting fun-filled day celebrating the diversity of First Nations drummers, dancers, Elders, story-tellers and crafts. There will many opportunities to participate for all ages on this important day of summer solstice.



The Ways of Knowing Turtle Island Conservation Initiative is a conservation program mandated by our First Nation partners with guidance from an advisory committee and partnerships with various First Nations communities throughout Ontario.

We have been able to create a number of resource materials translated into Mohawk and Ojibway writing systems. Currently we have turtle identifiers in both languages, turtle crossing signs and a Mohawk frog calls CD with Ojibway to follow. Stay tuned for our amphibian and snake identifiers which will be arriving soon.

Please visit our web page for current events and milestones as our pace seems to increase with every year of existence.

www.torontozoo.com/adoptapond/tici.asp

Kids For Turtles Stays Active This Winter

By: Bob Bowles, Kids For Turtles

We first read about the term Nature Deficit Disorder in *Last Child in the Woods* by Richard Louv published in 2005. He proposed the theory that there is a trend that children are spending less time outdoors resulting in a wide range of behavioural problems. He attributes this trend to parental fears for child safety. While indoors children spend many inactive hours consuming electronic media. CTV ran a story on this trend during the summer of 2007.

Joe Doiron, senior policy analyst with the Public Health Agency of Canada's healthy living unit, told CTV that the whole notion of free, unorganized play is going by the wayside and the trend now is mostly indoor organized activities. He adds, "children and youth are not as active today as they need to be to accrue all of the healthy benefits that they need for healthy growth and development."

Research by the environmental group Living Green has found that the average child in North America spends less than 15 minutes a day outside but up to 5 hours a day playing video games or watching television. These figures go up in the winter months. Public health staff has found that this lifestyle leads to unhealthy living and childhood obesity leading to health and emotional problems, confidence issues and continued unhealthy living.

funding for six more pairs of adult snowshoes for parents and supervisors to join the outings.

We made it more exciting for participants by building and installing a series of winter bird feeders along the snowshoe route. Kids For Turtles and Home Depot in Orillia held a special workshop on the morning of Saturday, January 10, 2009 at the Home Depot store. This was open to the public and every participant helped build five feeders for the trail and each built their own personal bird feeder to take home with them. Home Depot supplied all the



materials and knowledge while Kids For Turtles volunteers helped supervise the workshop. A total of 23 children and 24 adults attended the workshop. Scott Canada donated the sunflower seeds to stock the feeders this winter.

The five feeders were then painted at the Kids for Turtles office by volunteers and erected along the trail in Tudhope Park. We have conducted several outings this winter and recorded the wildlife species observed visiting the feeders during these outings. Overall, we have had a very active winter so far!



This winter Kids For Turtles Environmental Education is working to reverse this trend. We received

funding from Good For Life to purchase 12 pairs of high quality children snowshoes this winter for our Snowshoeing Sunday outings in Tudhope Park. We provide these available to groups or families free of charge along with leadership at special times this winter when snow conditions were best. We also found

Mudpuppy Cake!

By: Fae Cassidy, Adopt-A-Pond

Many thanks to Beth Johnson for permission to adapt and reprint the axolotl recipe: <http://goatinacoat.blogspot.com/2008/02/how-to-make-axolotl-cake.html>

Ingredients:

Cake:

250 g butter, chopped
150 g white chocolate, coarsely chopped
2 cups/440 g castor sugar
1 cup milk
1 1/2 cups plain flour
1/2 cup self raising flour
1 tsp vanilla essence/1/2 tsp vanilla extract
2 eggs, lightly beaten

Frosting:

1/2 cup solid hydrogenated coconut oil
1/2 cup butter at room temperature
40g white chocolate, melted
1 teaspoon Vanilla Extract
500 g sifted icing sugar
3-4 tbsp milk
Food Colouring (reddish-brown for Mudpuppy)

Decoration:

White Birthday Cake Icing
Food Colouring
Red or Pink Air Head Sour Belts
Pink gummy snakes. (The harder the better)
M&M's for eyes

Make the cake:

Grease a 20 cm round cake tin. Line with baking paper. Combine butter, chocolate, sugar and milk



in a medium saucepan. Stir over a low heat without boiling until smooth. Transfer to a large bowl and cool for 15 mins. Preheat oven to 160 C convection. Whisk sifted flours into mixture. Stir in eggs and essence. Pour mixture into your prepared pan and bake for 1 hour. Cover the pan with foil and bake

for a further 40 mins or longer depending on your oven.

The Icing:

Cream the coconut oil and butter. Add the chocolate and vanilla. Gradually add sugar, one cup at a time, beating well on medium speed, scraping down the sides of the bowl as required. When all sugar has been mixed in, icing will appear dry. Add milk and beat at medium speed until light and fluffy. Add food dye until you are happy with the colour.

Shape and Icing:

Place your cake onto a chopping board and, using a sharp knife, cut out your cake into a comma shape for the body and a triangle shape for the head. Use a bamboo skewer to attach the head to the body. Smother your cake all over with icing. You will set the icing and repeat this later, so just get the worst creases out now.

Add the legs and dorsal fin:

Make the legs by adding a bit of food colouring to your icing and knead it through until the colour is uniform. Pull off a clump and roll into a sausage. Flatten one end slightly between your thumb and forefinger and then make 3 cuts to make the toes. Press to the side of the body. Lightly dust your clean, dry work surface with icing sugar. Roll out a strip of birthday cake icing so its 3-4mm thickness and 3cm wide (you will need to work out the length depending on your own cake, but mine was from the top of the head to the middle of the tail). Arrange the dorsal fin along the length of the mudpuppy.

The gills:

Take your gummy snakes and cut them 4-5cm long. You will need 6 in total. Make slit down one end. With your sour belts, cut them into 6 x 3cm squares. Cut 10 slits down the sides of each square to make the gill segments.

The eyes:

Roll a small amount of the birthday cake icing into a ball. Flatten slightly. Use 2 M&M's for the pupils.

Finishing off:

Leave the cake in the fridge for about an hour or so to allow the icing to set. Run a hot knife (a metal knife or spatula dunked in hot water) to smooth over your salamanders icing.

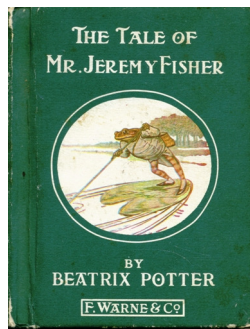
Editor's Note: The recipe was originally designed to make an axolotl cake. The axolotl is a salamander found in Mexico, that transforms into a terrestrial form which retains larval characteristics (such as external gills) and matures to breed in this form! Canada is home to the mudpuppy, a salamander which also retains larval characteristics as an adult. Adopt-A-Pond helps to link school children in Canada with those in Mexico to study both species and the lakes that sustain them (The Great Lakes in Canada and Lake Xochimilco in Mexico City).

Ribbit's Review – The Tale of Mr. Jeremy Fisher

Written by Beatrix Potter

Published by Warner U.S.

Reviewed by: Fae Cassidy, Adopt-A-Pond



Beatrix Potter is best known for her iconic children's literature featuring an array of creatures from squirrels to house cats to geese. For young animal lovers there is something for everyone, and for the young herpetologist there is *The Tale of Mr. Jeremy Fisher*. The story features a frog, Jeremy Fisher and his friends Mr. Alderman Ptolemy Tortoise and Sir Isaac Newton.

The story goes that one day Mr. Jeremy Fisher is going to have his friends over for dinner. Putting on his raincoat and boots, he decides to go fishing for minnows for supper in the pond he calls home. After several misadventures, including being bitten by a curious water beetle, being stalked by a rat, and catching Little Jack Sharp the stickleback fish, Mr. Jeremy Fisher is swallowed by a huge trout. Luckily, the raincoat he chose to wear that day was very unpleasant tasting (true of many frog skin toxins) to the trout and he is promptly spat out. After such a disastrous day trying to catch minnows, Mr. Jeremy Fisher gives up and insteads makes a dinner of roasted grasshopper with ladybird sauce and salad for his friends,

Beatrix Potter's excellent understanding of ecology translates beautifully into her children's stories, and makes for a wonderful beginning to a child's interest in animals of all kinds.

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Amphibian Voice is distributed to schools and communities participating in the Adopt-A-Pond programme. The purpose of this newsletter is to provide information on amphibian, turtle and wetland conservation issues and efforts in Ontario.

Send in your stories, drawings and photographs to the address below and we will "hoppily" include them in future issues.

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Toronto Zoo

Environment Canada's Habitat Stewardship Programme

Adopt-A-Pond is a non-profit wetland education programme. Costs to produce this newsletter, and other resources, are funded by grants and private donations.

We welcome support of our programme! Please make cheques payable to "Toronto Zoo" and send them to the following address. Thank you!

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